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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/551,403 | 09/29/2005 | Goro Shiraishi | S1459.70086US00 | 4461 |
| 23628 | 7590 | 06/01/2007 | EXAMINER | |
| WOLF GREENFIELD & SACKS, P.C. 600 ATLANTIC AVENUE BOSTON, MA 02210-2206 | | | MILLIKIN, ANDREW R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2837 | |
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| | | | 06/01/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/551,403 | SHIRAISHI ET AL. |
| | Examiner | Art Unit |
| | Andrew Millikin | 2837 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 March 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (U.S. Patent No. 5,614,687, hereafter '687).

Claim 1: '687 teaches a tempo analyzing apparatus comprising: a peak detecting means for detecting positions of a plurality of ones, higher than a predetermined threshold, of peaks of change in level of an input sound signal; a time interval detecting means for detecting a time interval between peak positions detected by the peak detecting means in a predetermined unit-time interval; and an identifying means for identifying a tempo of sound to be reproduced with the sound signal on a basis of a frequently occurring one of the time intervals detected by the time interval detecting means (see abstract).

Claim 2: '687 teaches apparatus according to claim 1, wherein the identifying means accumulates a frequency of occurrence of a time interval between the positions of peaks detected in a plurality of unit-time intervals and identifies the tempo of the sound to be reproduced on the basis of accumulated frequency of occurrence (column 3, lines 58-67 & column 4, lines 1-4).

Claims 3-4: '687 teaches the apparatus according to claim 1, further comprising: a frequency band dividing means for dividing an input signal into a plurality of frequency bands ('687 divides the input sound signal into three bands: a lower stopped band; a passed band; and a higher stopped band) (column 3, lines 14-17), and the peak detecting means detecting the peak positions for each of at least one or more ones of the plurality of frequency bands divided by the frequency band dividing means; the time interval detecting means detecting a time interval between peak positions detected for each of at least one or more frequency bands by the peak detecting means; and the identifying means identifying the tempo of sound to be reproduced on the basis of the frequently occurring one of the time intervals detected for each of at least one or more frequency bands (column 3, lines 58-67 & column 4, lines 1-4).

Claims 5-7: '687 teaches the apparatus according to claims 1, 3, & 4, further comprising: a volume calculating means for calculating a volume of the input sound signal; and a threshold setting means for setting a threshold used to detect a peak position with reference to the volume calculated by the volume calculating means (column 3, lines 23-29).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 8, 10-18, & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over '687, as applied to claim 1 above, in view of Yamauchi et al. (U.S. Patent No. 6,140,565, hereafter '565).

Claims 11-17 are rejected for substantially the same reasons as claims 1-7 above (see previous rejection, dated 18 December 2006), except that '687 does not teach displaying an image corresponding to the identified tempo on an image display device (as recited in the amended claim 11). '565 teaches displaying an image corresponding to the read video data on an image display device (column 16, lines 20-21; see Fig. 1, top right) in order to provide a method for visually representing a music system (column 1, lines 65-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have displayed an image corresponding to the identified tempo of '687 in order to have provided a method for visually representing a music system.

Claims 8, 10, 18, & 20: '687 teaches the method according to claim 11, but does not teach selectively reading video data from a plurality of video data stored in a storage means on the basis of the identified tempo; and displaying an image corresponding to the read video data on an image display device. '565 teaches selectively reading video data from a plurality of video data stored in a storage means on the basis of the identified tempo (column 13, lines 5-26); and displaying an image corresponding to the read video data on an image display device (column 16, lines 20-21; see Fig. 1, top right) in order to provide a method for visually representing a music system (column 1, lines 65-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method of visualizing music of '565 with the method of determining tempo of '687 in order to have provided a visual representation of the music system.

Claims 10, 20: '565 teaches selectively reading a plurality of video data stored in a storage means on the basis of calculated sound volume (column 3, lines 20-28).

6. Claims 9 & 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over '687 in view of '565 and further in view of Kellock et al. (U.S. Patent Application Publication 2004/0027369, hereafter '369).

'565 teaches the method according to claim 18, but doesn't teach the step of controlling size, moving speed and moving pattern of the image to be displayed on the image display device. '369 teaches that controlling size, moving speed and moving

pattern of an image to be displayed on an image display device [0051, 0086] helps allow for automated editing of digital video [0008]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have controlled the size, moving speed, and moving pattern of the visual representation of '565 in order to have allowed for better automated editing of the digital video output.

Response to Arguments

7. Applicant's arguments filed 16 March 2007 have been fully considered but they are not persuasive. Applicant argues that Yamada does not teach identifying a tempo of sound to be reproduced with a sound signal on the basis of a frequently occurring time interval or on the basis of one, having occurred at a high frequency, of the detected time intervals. Examiner disagrees. Regardless of whether an interval is frequently occurring or not, the beat detecting apparatus of '687 will identify the tempo of the sound signal. Further, '687 discusses averaging calculated BPM calculations and determining whether the difference between each sampled value of the BPM is within plus or minus 5 BPM. Therefore, '687 clearly meets the limitations of the claims. See columns 3-7.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

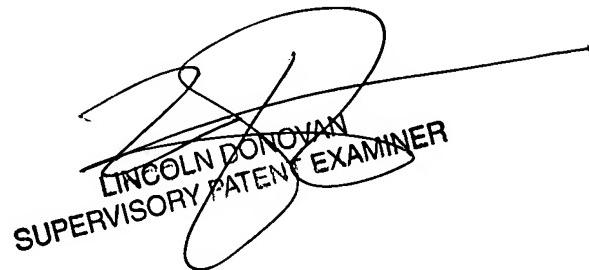
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Millikin whose telephone number is 571-270-1265. The examiner can normally be reached on M-R 7:30-5 and 7:30-4 Alternating Fridays (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 571-272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER